

## CLAIMS:

1. A method of determining filter coefficients from Line Spectral Frequencies comprising recomputing  $P(z)$  and  $Q(z)$  polynomials and comprising calculating the  $\omega_i$  coefficients, characterised by the steps of ordering the polynomials in a series and reducing the number of polynomials in  $\omega_i$  in the said series by combining the polynomials in  $\omega_i$  two by two in a manner so as to arrive at two polynomials in  $\omega_i$  and determining the product of the said two polynomials.

2. A method as defined in claim 1, wherein at least one series of intermediate polynomials is formed by combining the original polynomials two by two; the polynomials of the at least one intermediate series also being combined two by two so as to arrive at a yet further reduced number of polynomials.

3. A method as defined in claim 1 or 2, wherein the following ordering of polynomials is used for  $m$  is even:

$$v_0[0] = 1 - z^{-1}$$

$$v_0[1] = 1 - 2 \cos \omega_1 z^{-1} + z^{-2}$$

$$v_0[2] = 1 - 2 \cos \omega_3 z^{-1} + z^{-2}$$

$$v_0[m_q] = 1 - 2 \cos \omega_{2 \cdot m_q - 1} z^{-1} + z^{-2}$$

4. A method as defined in claim 1 or 2, wherein the following ordering of polynomials is used for  $m$  is odd:

$$v_0[0] = 1 - z^{-1}$$

$$v_0[1] = 1 - 2 \cos \omega_1 z^{-1} + z^{-2}$$

$$v_0[m_q] = 1 - 2 \cos \omega_{2 \cdot m_q - 1} z^{-1} + z^{-2}$$

$$v_0[m_q + 1] = 1 + z^{-1}$$

5. An encoder for encoding a source signal, wherein the encoder is arranged for carrying out the method as defined in any one of the preceding claims.

6. A communication device comprising an encoder as defined in claim 5.

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